

ICS 13.060.25

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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 18916.46-2019

Norm of water intake - Part 46: Nuclear power

取水定额 第46部分：核电

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Foreword

GB/T 18916 "Water quota", has been or is planned to be released The following sections.

- Part 1. Thermal power generation;
- Part 2. Iron and steel joint ventures;
- Part 3. Petroleum refining;
- Part 4. Textile dyeing and finishing products;
- Part 5. Paper products;
- Part 6. Beer manufacturing;
- Part 7. Alcohol manufacturing;
- Part 8. Synthetic ammonia;
- Part 9. MSG manufacturing;
- Part 10. Pharmaceutical products;
- Part 11. Coal preparation;
- Part 12. Alumina production;
- Part 13. Ethylene production;

1 Scope

GB/T 18916.46-2019 is the Chinese national standard on norm of water intake - part 46: nuclear power, in the field of environment and health protection, safety. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 18 October 2019 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since

1 February 2020. Classification: ICS 13.060.25, CCS P41. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This part of GB/T 18916 specifies the terms and definitions of nuclear power water withdrawal quotas, calculation methods and water withdrawal quotas. This part is applicable to the design and construction period of pressurized water reactor nuclear power plants with single unit capacity above 600MW and seawater DC cooling. And management of water withdrawal during operation.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 12452 Enterprise Water Balance Test General

GB/T 18820 General rules for the preparation of water withdrawal quotas for industrial enterprises

GB/T 21534 Industrial Water Saving Terminology

GB 24789 Water unit water metering equipment management and general rules

3 Terms and definitions

The following terms and definitions as defined in GB/T 18820 and GB/T 21534 apply to this document.

3.1 Unit power generation quantity water

quantityquantityofwaterintakeforunitgeneratingcapacity The amount of water taken per unit of electricity produced by a nuclear power plant.

3.2 Unit installed capacity water intake quantityofwaterintakeforunitratedcapacity

The amount of water taken up according to the installed capacity of the nuclear power plant.

3.3 Annual water withdrawal quantityofwaterintakeforconstruction during construction period

The sum of annual water withdrawals for production and life during the construction and commissioning phase of a nuclear power plant.

4.1 General provisions

4.1.1 Scope of water withdrawal The water withdrawal range refers to the amount of water extracted by the nuclear power plant from various water sources, including from surface

water (measured by water supply from the water purification plant), groundwater, and city. Town water supply project, other water purchased from the market, and fresh water produced by seawater desalination process (first-grade fresh water supply by desalination plant) The amount of water; does not include the amount of water taken from the ocean for the condenser and other heat exchangers to be cooled and discharged back to the raw water.

4.1.2 Water supply range The water supply range includes production water, domestic water, fire water, greening, road sprinkling, and car wash during the construction period and operation period of the nuclear power plant.